

Notice of Allowability

Application No.

09/483,337

Examiner

L. E. Crane

Applicant(s)

KOOL, ERIC T.

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of August 12, 2005.
2. ☒ The allowed claim(s) is/are 56-60,81 and 82.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

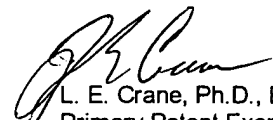
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8/12/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7/8 & 11/9/2005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


L. E. Crane, Ph.D., Esq.
Primary Patent Examiner
Technology Center 1600

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Claims 1-55 and 61-80 were cancelled without prejudice to the filing of divisional or continuation applications.

Claim 56 has been replaced in its entirety by the following:

-- 56. A method for detecting a genetic polymorphism in a target nucleic acid comprising:

providing a mutant polymorphism oligonucleotide probe that is complementary to a region on the target nucleic acid that comprises the genetic polymorphism;

providing a universal oligonucleotide probe capable of binding to the target nucleic acid at a region that is conserved in the analogous wild-type nucleic acid;

wherein one oligonucleotide probe constitutes an upstream oligonucleotide having, as its 5'-end, a ribo- or deoxyribonucleoside wherein the 5'-hydroxyl group thereof has been replaced by a leaving group, and the other oligonucleotide probe constitutes a downstream oligonucleotide comprising, at its 3' end, a nucleoside comprising a 3' functional group selected from the group consisting of 3'-phosphoroselenoates such that, when both probes are bound to the target nucleic acid, an end of the universal oligonucleotide probe is substantially adjacent to an end of the mutant polymorphism oligonucleotide probe so as to position the 5' leaving group and the 3'-functional group in close proximity to one another;

contacting the target nucleic acid with the universal oligonucleotide probe and the mutant polymorphism oligonucleotide probe to yield an autoligated oligonucleotide product comprising the universal oligonucleotide probe and the mutant polymorphism probe; and

detecting the presence of the autoligated oligonucleotide product, wherein the presence of an autoligated product indicates the presence of a genetic polymorphism in the target nucleic acid. --

The following new claims have been added:

-- **81.** The method of claim **56** wherein the target nucleic acid is DNA. --

-- **82.** The method of claim **56** wherein the target nucleic acid is RNA. --

Authorization for this Examiner's Amendment was given in a telephone interview with **Ms. Victoria A. Sandberg** on November 9, 2005.

Papers related to this application may be submitted to Group 1600 via facsimile transmission (FAX). The transmission of such papers must conform with the notice published in the Official Gazette (1096 OG 30, November 15, 1989). The telephone number to FAX (unofficially) directly to Examiner's computer is 571-273-0651. The telephone number for sending an Official FAX to the PTO is 703-872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is **571-272-0651**. The examiner can normally be reached between 9:30 AM and 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. S. Anna Jiang, can be reached at **571-272-0627**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is **571-272-1600**.

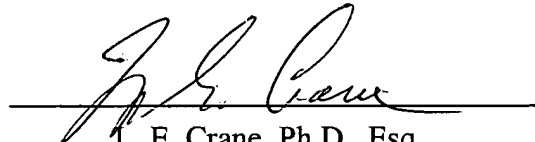
All Post-Allowance Correspondence concerning this application must be mailed to:

BOX ISSUE FEE
COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

OR you can FAX them to the Office of Patent Publications at 703-308-5083, in order to expedite the handling of such correspondence as amendments under 37 C.F.R. §1.312; Information Disclosure Statements (IDS's), and formal drawings. Sending Post-Allowance papers to Technology Center 1600 will only cause delays in matching papers with the case.

For information concerning status of correspondence sent after receipt of the Notice of Allowance, please contact the Correspondence Branch at **703-305-8027**. The Notice of Allowance also has an insert containing contact information for other items, including Issue Fees, receipt of formal drawings, and the status of the application.

LECrane:lec
11/10/2005



L. E. Crane, Ph.D., Esq.
Primary Patent Examiner
Technology Center 1600